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ABSTRACT

This report investigates the lack of services provided to gifted students with attention and/or behavior problems. Issues addressed include: characterizations of gifted children and the resulting prejudice against gifted children who do not meet a certain profile; the similarities among characteristics of high ability/creative children and students identified with emotional/behavioral disorders or attention deficit hyperactivity disorder; the dissonance between the gifted individual and the attitudinal environment of the school; elements in the school environment that are possible contributors to students' behavioral and learning challenges; the underachievement of gifted students; the lack of identification of gifted students who have disabilities; the tendency of educators and others to rely on distinctions among populations of children and youth, and to ignore the similarities that may exist; and the tendency of teachers to be predisposed to view negative characteristics of children and youth as indicators of behavioral disabilities, rather than as potential signs of creativity or advanced learning ability. Important implications for understanding the rationale to include students with behavioral challenges in gifted programs are provided, as well as recommendations for inservice and preservice teacher education, and considerations regarding interventions, curriculum, and adaptations in the general school environment. An executive summary is provided. (Contains 60 references.) (Author/CR)

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Square Pegs in Round Holes—These Kids Don't Fit: High Ability Students With Behavioral Problems

Brian D. Reid, Ph.D.
Michele D. McGuire, Ph.D.
The University of Alabama
Birmingham, Alabama

September, 1995
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Research-Based Decision Making Series

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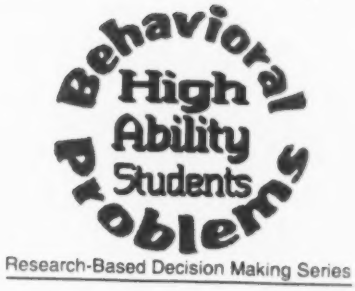

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ABSTRACT

The legacy of Terman may be the creation of a new myth about the gifted. Terman reported that the students identified as gifted for his study (IQ≥140) were superior in most areas of functioning to those who did not qualify. Terman claimed that gifted students were appreciably superior to unselected children in physique, health, social adjustment, and moral attitudes; a perspective that has become the predominant thinking in the field. This widely held view may be one of the major, underpinning reasons that students with disabilities are routinely overlooked for gifted services.

The present paper proposes that students with attention and/or behavioral problems, in particular, are not considered for gifted services due to overt negative behaviors and conduct problems which conflict with the "Terman perspective." Emphasis is placed on an examination of the similarities among characteristics of high ability/creative children and students identified with emotional or behavioral disorders (EBD) or attention-deficit/hyperactivity disorder (ADHD). Credence can be given to the idea that many of the manifestations of these disorders (EBD and ADHD) are similar to, and perhaps are, indicators of creative or learning potential. A major premise is that students who appear to have behavioral problems may be, in fact, gifted. Further, it is proposed that students identified as EBD or ADHD may be dually qualified for services; i.e., also eligible to be served in programs for the gifted.

Important implications for understanding the rationale to include students with behavioral challenges in gifted programs, as well as recommendations for inservice and preservice teacher education, and considerations regarding interventions, curricula, and adaptations in the general school environment are provided.

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EXECUTIVE SUMMARY

Common Perspectives on Giftedness

Among the classic bodies of research related to giftedness is the longitudinal study of Lewis Terman (1954); a study still in process. Terman, in several ways, prompted the myth that children who are gifted are pervasively superior to those who are typical or "nongifted." He found that "the gifted" (IQ≥140) were superior in physique, health, social adjustment, moral attitudes, mastery of school subjects, and mortality (Terman & Oden, 1959). This myth has been perpetuated both intentionally and unintentionally by teachers of the gifted, others in the field, and in relevant textbooks. A number of introductory texts (e.g., Blackhurst & Berdine, 1993; Hallahan & Kauffman, 1991; Meyen & Skrtic, 1988; Parkay & Hardcastle, 1990) characterize the gifted as individuals who typically:

- are healthy, well adjusted, emotionally healthy, socially attractive, and morally responsible;
- are endowed with extraordinary gifts in specific areas;
- tend to enjoy school, adjust well to peers and teachers;
- possess remarkable talents and productivity levels that [typically] develop during early years and continue throughout life;
- possess/generate high levels of creativity and motivation;
- have demonstrated achievement, specific academic aptitude; and
- perform at a remarkably high level [some]; but [most] will reach potential commensurate with abilities when talents are deliberately fostered by specialized incentives and instruction.

The composite of such information implies that when a child is not well adjusted, morally advanced, healthy, and so on, then he or she cannot be gifted. This has led to the belief on the part of many that the "truly gifted" possess all of the characteristics that Terman (1954) identified (predominantly a high IQ score), leaving the others deserving of only a superficial enrichment program consisting of watered down, simplistic activities.

Contrasting Perspectives

There is an emerging literature base dedicated to explorations of the nature and characteristics of difficulties faced by gifted children in school settings. Many bright students do experience difficulty adjusting to existing systems and philosophical structures in schools (Betts, 1986; Delisle, Whitmore, & Ambrose, 1987; Johnson, 1981; Rimm, 1987). The manifestations of such difficulties tend to resemble the traits associated with emotional and behavioral disorders (EBD), and attention-deficit/hyperactivity disorder

(ADHD). In general, these characteristics reflect a number of negative behaviors that are in direct conflict with teachers' perceptions of student success factors.

There is a strong common bond among the negative manifestations of creativity/giftedness and descriptors associated with classifications of behavioral problems. Though accepted as mutually exclusive populations, it would seem that a number of students identified as EBD or ADHD may be individuals who are presenting their giftedness in an alternative manner. This is particularly interesting when these commonalties are contrasted with teachers' perceptions of skills needed for success in school. Teachers consistently identified success factors as skills or behaviors in which students demonstrate general compliance and engage in teacher pleasing behaviors (Kauffman, 1993). One could logically infer that these factors also represent the skills teachers view as important descriptors of students qualified to be nominated for gifted programs. Thus, it is likely that the negative connotations of giftedness and creativity may be misinterpreted as signs of other exceptionalities while the gifted/creative aspects of the individual tend to be overlooked. Indeed, it seems that the broad and vague nature of some descriptors of problem behavior must, by definition, include creative individuals.

Given this semblance, inferences drawn from a study conducted by Krippner (1977) seem to hold relative merit. Krippner found that a number of children who scored in "highly creative" levels on relevant assessments, were identified merely as hyperkinetic. Results suggested that these children may have exhibited noxious behaviors that are common to both diagnostic categories (i.e., gifted and hyperactive); but constitute behaviors most frequently associated with "nongifted" classifications. Krippner (1977), in fact, stated similar implications: ". . . there is some indication that a school program which geared itself to making the maximum use of these children's creative abilities would have eliminated the need for medicinal treatment" (p. 80).

School-Based Issues

Davis and Bull (1988) suggested that gifted children and youth who are gifted frequently are self-sufficient, nonconformist, and independent thinkers who adamantly believe in one's right to control his or her own destiny. Skrtic (1992), however, characterized schools as agencies in which conformity is heralded, and convergent rather than divergent thinking is emphasized, despite their publicly stated counter claims and promotions. It is in this context that the potential for dissonance between the gifted individual and the attitudinal environment of the school can be examined; i.e., elements within the school environment can be explored as possible contributors to students' behavioral and learning challenges. Under such circumstances, students may seek alternative ways to independently explore and develop personal potential; ways that are likely to be in conflict with general operating procedures of the school (Kasen, Johnson, & Cohen, 1990; Kauffman, 1993; Mayer, Nafpaktitis, Butterworth, & Hollingsworth, 1987; Reynolds, Wang, & Walberg, 1987). Such alternative outlets often are manifested as verbal and/or physical aggression, hostility, resentment, defiance, or passively resistant behaviors (Mayer et al., 1987).

Several professionals have identified the conformity, rigidity, and commonalty promoted in school programs as problematic for children. Essentially, schools serve to discourage, rather than support, naturally differential development. Among other school-based concerns, issues related to teaching-learning interactions and curricular content have been discussed. One commonly debated, yet critical consideration is the extensive use of extrinsic rewards for learning (Kohn, 1993; 1994). According to Kohn, extrinsic

contingencies involve the use of a behavioral approach that focuses on (a) teacher-centered tasks, and (b) systematic procedures to reward success and punish failure with respect to those tasks.

Another consideration is the lack of interest and relevance to the students. Kauffman discusses the relationship between curricular or learning goals and problem behavior:

> One way the school increases the probability that students will misbehave or be truant is in offering instruction for which pupils have no real or imagined use. Not only does this kind of education fail to engage students, but it also hinders their social adaptation by wasting their time and substituting trivial information for knowledge that would allow them to pursue rewarding activities. (Kauffman, 1993, p. 200)

Gifted Students, Underachievement, and Troublesome Behaviors

Professionals in the field have recognized that students who are gifted are not, by nature of their giftedness, immune to the difficulties and problems present in school settings, e.g., rigidity of rules, uniformity, and conformity. Professionals have acknowledged that gifted students often experience difficulties that are manifested in performance or behavioral problems (Davis & Bull, 1988; Delisle et al., 1987; MacKinnon, 1978; Rimm, 1987; Sebring, 1982; Strang, 1960; Whitmore, 1980, 1985). There is evidence to suggest that as high as 45% of identified gifted children with IQ scores above 130 also have grade point averages that are lower than average (Johnson, 1981). It is further disturbing to note that among the population of high school dropouts as many as 14% were determined to have IQ scores in excess of 130 (Johnson, 1981). One could speculate on whether or not these students would have dropped out of school had their actual abilities and learning needs been met. Nonetheless, in spite of evidence to the contrary, the image persists that individuals who are gifted will succeed in spite of environmental influences.

Gifted Students and Disabilities

In recent years, the position that giftedness exists as a mutually exclusive exceptionality has been challenged; researchers have initiated investigations beyond the context of traditional, stereotypical perspectives. Gradually, the field of gifted education has recognized the possibility of students that have high ability and disabilities. Particular concern has been devoted to students with learning disabilities (Baum, 1984, 1994), and has involved examinations of the characteristics and needs of students with coincident high-ability and learning disabilities (Baum, 1994; Baum, Emerick, Herman, & Dixon, 1989; Baum, Owen, & Dixon, 1991; Neu, 1993; Reis, Neu, & McGuire, 1995; Whitmore & Maker, 1985). The more current and controversial issue addresses bright students who are behaviorally involved; i.e., those who are identified as ADHD or otherwise experience significant behavioral problems. The position presented in this paper suggests that children and youth who exhibit characteristics typically associated with EBD and/or ADHD, whether or not labeled as such, are routinely overlooked for services as gifted. Several issues related to intellectual ability and behavioral characteristics have been raised, as well as those related to the impact of school-based policies and procedures. Further examination warrants a brief discussion of the rationales embedded in traditional perspectives and processes embraced in school environments.

Identification, Reification, and Assessment Issues

There is an old adage that "you find what you are looking for." Similarly, if a child is referred for suspected learning or behavioral disorders or for possible giftedness, the diagnostic process typically focuses on whether or not the child exhibits the characteristics associated with the suspected classification. Assessment materials and diagnostic procedures are organized in alignment with suspicions, rather than as a means to provide a broad view of a child's levels of ability and performance. Consequently, evaluation results which yield the absence of specified categorical characteristics generally lead to the conclusion that (a) the child is not eligible for special services and (b) it is appropriate for the child to remain in the general education program.

Current and Future Challenges

A primary difficulty in identifying and working with high-ability students who have behavioral problems is the paucity of research on this population. Currently, there are little or no data to effect change in assessment practices, the teaching-learning interaction, intervention, or general classroom procedures. Further, there is an absence of data to suggest ways in which an educator can recognize, and then meet the needs of the bright, behaviorally involved student. The literature on students with EBD suggests that these individuals are below average in ability (Hallahan & Kauffman, 1991); literature in the field of gifted frequently refers to the students who attain IQ scores in excess of 130. Literature concerning behavioral disorders emphasizes inappropriate behaviors, contrasted with the view of gifted students as pervasively superior to those who are typical or "nongifted." And yet, conversations with teachers of the gifted invariably elicit cases of bright students who exhibit emotional or behavioral disorders, while teachers of students with EBD denounce the low scores attained by their students on measures of ability and achievement.

The lack of research and subsequent literature would suggest that more information is needed regarding students who could classify as both bright and as behaviorally problematic. As increasing numbers of troubled youth are identified as possessing high ability, teachers will need practical, relevant information about this population. Research is needed not only in areas that clarify the characteristics of this population, i.e., assists teachers in the identification of bright individuals who are emotionally or behaviorally disordered; but also in effective assessment practices, curriculum development, and in the use of positive intervention strategies.

Guidelines

The following guidelines have been determined from the preceding review of literature concerning high ability students with behavioral problems. A brief review of relevant literature is provided as a rationale for each guideline presented.

Guideline One: Schools and universities need to devise inservice and preservice programs for educators to broaden their views about the nature and needs of high ability students and students with behavioral difficulties.

Discussion: Teachers are predisposed to view negative characteristics of children and youth as indicators of disturbances in emotional or behavioral domains (e.g., emotional and behavioral disorders [EBD] or attention-deficit/hyperactivity disorders [ADHD]). Consequently, bright children and youth who exhibit negative or noxious behaviors, and do not perform at high achievement levels, are more likely to be referred for and placed in traditional special education services than in gifted programs. Educators need information that addresses the characteristics of each classification, as well as the concept of dual exceptionalities (e.g., giftedness and behavioral problems). Practical information can dispel stereotypical viewpoints that these are mutually exclusive categories and enable educators to better recognize the characteristics of gifted students with EBD or ADHD. Educators, thereby, would be better equipped to properly screen for and identify this underserved group of high ability children and youth. The preservice and inservice training should be based on sound theoretical principles and delivered in conjunction with opportunities for direct interactions with the target population.

Guideline Two: School systems need to revise identification procedures to locate bright students with behavioral problems.

Discussion: Professionals with training in gifted education should be systematically included in the processes of eligibility determination for students in special education. Since the "negative" indicators of giftedness are commonly confused with or masked by other presenting behaviors, a traditional special education review panel is apt to ascribe such characteristics to familiar categories of learning/behavioral disabilities. An individual trained in gifted education is more likely to recognize or identify particular traits that are also indicative of creativity and/or high ability. The inclusion of an educator trained in gifted education, therefore, increases the probability that students who have behavior disorders and high ability will be identified and dually served.

Guideline Three: The student evaluation should be comprehensive in nature. Assessment must examine the full range of student strengths and weaknesses rather than the merely "testing" for the predetermined, apriori category.

Discussion: In the traditional special education deficit model, assessment procedures focus on validation of characteristics associated with a suspected disability (label), rather than on an analysis of all presenting characteristics of the learner. Assessment strategies are selected based on the suspected disability rather than to determine a global picture of the student's strengths, as well as weaknesses. For example, very few, if any, students referred for special education are administered tests of creativity, learning styles inventories, or interest assessments as part of the eligibility evaluation. A more appropriate strategy is to explore the full range of student attributes which include: interests, creativity, learning styles and preferences, intellectual ability, achievement, social/emotional/behavioral development, extracurricular accomplishments, leadership

capability, and motivational patterns. Sources of information include: formal and informal tests; school records; medical history; student, parent, and teacher interviews; behavior rating scales; and observations of student interactions in the classroom and in less formal settings (e.g., lunchroom and playground). This information should be viewed holistically to create a multidimensional portrait of the student, rather than as a series of splintered cutoff scores.

Guideline Four: School systems need to implement practices that support educators in their efforts to serve bright students with behavioral problems.

Discussion: The nature and needs of high ability/behaviorally disordered students require creative programming options and interventions. At the present, there are few, if any, teacher education programs that synthesize training in the methodologies effective for students who are gifted and also are EBD or ADHD. The implementation of building-based support teams (BBSTs) offers a means to assist teachers who work with this population. The BBST, comprised of cross-disciplinary professionals, creates a cooperative venue for teachers with varying levels of expertise to collaborate on issues of identification, to determine appropriate educational environments and methodologies, to develop and evaluate curricula, to determine performance and evaluation criteria, and to generate and provide suggestions for possible interventions. Thus, the BBST approach provides a formal framework for philosophical discussions, the exchange of ideas, and continuous staff development.

Guideline Five: Curricula for high ability students with EBD or ADHD need to be appropriate for each individual child and, thereby, designed to be challenging, creative, and motivating.

Discussion: Content selection should reflect or be based on student interests, relevance, and functional use. Interest-based lessons encourage students to be active participants in learning, rather than passive receivers of information. Relevant and functional curricula incorporate multiple levels of challenge into teaching-learning interactions, engage students in meaningful learning opportunities, and ensure that students do not repeat previously learned material.

Guideline Six: Instructional practices for high ability students with EBD or ADHD need to be diverse and determined for each child on an individual basis.

Discussion: Teachers can draw from a variety of tested methods and contexts to use diverse strategies within any group setting. Instruction that is based on the individual needs of students ensures that diverse learning styles and preferences are addressed. Interventions that encourage creativity and talent development should be infused throughout the instructional program. Effective techniques to consider include curriculum compacting, independent or self directed study, small group instruction, discussion groups, research teams, and thematic instruction.

Guideline Seven: The learning environment designed for high ability students with EBD or ADHD needs to be conducive to creative pursuits and risk-taking, and to invite learning challenges.

Discussion: The optimal learning environment is one in which problem-solving, creativity, and decision making are encouraged and valued. Students need to feel secure as they seek a variety of information and express multiple solutions and ideas. Physical arrangements in

the room(s) should permit students freedom of movement with ready access to materials, supplies, and resources needed to complete projects, tasks, and investigations.

Guideline Eight: Methods to develop autonomy, intrinsic motivation, and self-regulation for high ability students with EBD or ADHD need to be explored and employed as a replacement for extrinsic contingencies.

Discussion: "Curriculum of control" strategies (i.e., the use of external rewards and punishments) defeat efforts to help children learn to monitor and manage their academic and social behaviors. Alternative methods that focus on the development of intrinsic motivation can be incorporated into the total instructional plan. Initially, teachers need to use direct instruction in thinking skills to help students learn to set goals, make effective decisions and solve problems. Opportunities must also be provided for students to make decisions, about learning goals, classroom organization, and strategies necessary to meet those goals. As students learn to take ownership of their learning, intellectual efficiency and motivation are strengthened and the need for a curriculum of control can be minimized. Students can also learn to self-monitor and self-regulate their behaviors, which serves to strengthen autonomy. Such methods, when combined with social skills instruction, encourage students to learn ways in which to appropriately and effectively interact with peers and adults.

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Great spirits have always encountered violent opposition from mediocre minds.
Albert Einstein

Common Perspectives on Giftedness

The challenge to understand "giftedness" has long perplexed professionals. In the earliest years of the present century, psychological and sociological scholars pondered the factors about similarities and differences among individuals that would lead some to emerge as gifted or talented, while others from similar backgrounds and circumstances did not. In the presiding theoretical paradigm of the era, early investigators sought to determine or isolate the factors that were different about the intellectual abilities of a child. Specific emphasis was placed on measurement of the intelligence quotient (IQ) as a means to examine inherent child characteristics presumed descriptive of superior intellectual development.

Among the classic bodies of research related to giftedness is the longitudinal study of Lewis Terman; a study still in process. In the Terman study (Terman & Oden, 1959), subjects were identified and selected based on the outcome of screening procedures designed to reveal IQ scores. Potential subjects were administered the Stanford-Binet Intelligence Scale, and were classified as gifted when they attained IQ scores at or above 140. Although reliance on an isolated score has been questioned in recent years, Terman's work revealed a number of factors that challenged the perspectives commonly held at that time, and persist even today regarding bright individuals:

> Children of IQ of 140 or higher are, in general, appreciably superior to unselected children in physique, health, and social adjustment; markedly superior in moral attitudes as measured either by character tests or by trait ratings; and vastly superior in their mastery of school subjects as shown by a three hour battery of achievement tests. . . . Furthermore, the incidence of mortality, ill health, insanity, and alcoholism is in each case below that for the generality of the corresponding age, that the great majority are still well adjusted socially, and that the delinquency rate is but a fraction of what it is in the general population. (p. 8)

Terman's observations provide a sharp contrast to the frequent portrayal of bright individuals as physically weak, annoying, obnoxious, and merely tolerated by peers. Thus, there are several positive contributions to the field derived from Terman's monumental and, as yet, unparalleled examination of giftedness. However, a portrayal representative of either extreme presents an image that distorts an understanding of the complexity of gifted behaviors. Consequently, in spite of the positive contributions realized by Terman's work, there has been an unintended, negative outcome.

Essentially, Terman, in several ways, prompted the myth that children who are gifted are pervasively superior to those who are typical or "nongifted." This myth has been perpetuated both intentionally and unintentionally by teachers of the gifted, by others in the

field, and in relevant textbooks. Perhaps one of the best illustrations of "myth validation" is found in textbooks developed for use by preservice and inservice teachers enrolled in special education survey courses. For many educators, this type of introductory course provides their only formal coursework related to children and youth with special learning needs, including the gifted. A number of introductory texts (e.g., Blackhurst & Berdine, 1993; Hallahan & Kauffman, 1991; Meyen & Skrtic, 1988; Parkay & Hardcastle, 1990) characterize the gifted as individuals who typically:

- are healthy, well adjusted, emotionally healthy, socially attractive, and morally responsible;
- are endowed with extraordinary gifts in specific areas;
- tend to enjoy school, adjust well to peers and teachers;
- possess remarkable talents and productivity levels that [typically] develop during early years and continue throughout life;
- possess/generate high levels of creativity and motivation;
- have demonstrated achievement, specific academic aptitude; and
- perform at a remarkably high level [some]; but [most] will reach potential commensurate with abilities when talents are deliberately fostered by specialized incentives and instruction.

The image created is that individuals who are gifted are those who, by virtue of their extraordinary abilities, consistently exceed expectations across the range of developmental dimensions (i.e., cognitive, academic, physical, social, and emotional) when measured against chronologically based milestones. Textbooks tend to further promote this view by also proposing that the following descriptors constitute *myths* about the gifted:

- emotionally/mentally unstable;
- socially inept;
- self-centered and/or conceited;
- behaviorally strange, odd; and
- exclusionary in interests, interested in only personal endeavors.

The composite of such information implies that when a child is not well adjusted, morally advanced, healthy, and so on, then he or she cannot be gifted. Since introductory courses represent the first, and frequently the only exposure to gifted education that educators receive, it is probable that educators in general hold distorted perceptions about the holistic nature of bright students. Further, even texts within the field of gifted education often present a skewed perspective on giftedness portraying only the positive manifestations. As a result, teachers who are prepared to work with gifted populations also may be led to believe and perhaps promote a limited view of the gifted.

Various studies have been conducted to examine the factors teachers perceive to be critical for success in school (Hersh & Walker, 1983; Kerr & Zigmond, 1986). The results of such investigations yielded similar factors; teachers in the samples identified common behaviors regardless of the level taught, i.e., elementary through secondary grades. The composite of skills deemed critical are summarized in Table 1 (Kauffman, 1993). A quick review of these skills reveals that the vast majority are related to compliance, i.e., following school and classroom rules.

Table 1

Skills Considered Critical for Success in the Regular Classroom

1. Follows established classroom rules
2. Listens to teacher instructions
3. Can follow teacher-written instructions and directions
4. Complies with teacher commands
5. Does in-class assignments as directed
6. Avoids breaking classroom rule(s) even when encouraged by a peer
7. Produces work of acceptable quality given his/her skill level
8. Has good work habits (e.g., makes efficient use of class time, is organized, stays on task)
9. Makes her/his assistance needs known in an appropriate manner
10. Copes with failure in an appropriate manner
11. Uses academic tools correctly
12. Uses classroom equipment and materials correctly
13. Attends consistently to assigned tasks
14. Can accept not getting his/her own way
15. Expresses anger appropriately
16. Listens while other students are speaking
17. Observes rules governing movement around the room.
18. Behaves appropriately in nonclassroom settings, respects property and the rights of others
19. Is honest with others
20. Improves academic or social behavior in response to teacher feedback
21. Questions rules, directions, or instructions that are not clear to her/him
22. Has independent study skills
23. Responds to requests and directions promptly

SOURCE: Kauffman, J. M. (1993). *Characteristics of emotional and behavioral disorders of children and youth* (5th ed.). New York: Macmillan Publishing.

The priorities identified in Table 1 suggest that compliance tends to be more highly valued and, perhaps, more desired in classrooms than are academic ability or performance. Clearly, reasonable expectations for behaviors are necessary for maintenance of a safe and positive learning environment. Further, it would be a use of faulty logic to generalize these results to all educators; i.e., it is recognized that there exists a considerable amount of variability in the range of tolerance, standards, and expectations teachers espouse (Walker, 1986). Nonetheless, it is curious that the primary skills teachers consistently perceived to be critical for success in school involve behaviors in which students demonstrate general compliance and engage in teacher pleasing behaviors. Thus, one could logically infer that the critical success factors identified by teachers are likely representative of the skills teachers also view as important descriptors of the performance necessary for students to be nominated for gifted programs.

Contrasting Perspectives

In light of Terman's (1954) widely accepted perspective on giftedness, it is not surprising that there exists a widespread perception that students who are poorly adjusted

or have difficulties in school should not be served in gifted programs. Currently, a cohesive body of research regarding specific adjustment issues relevant to giftedness is not readily available. Nevertheless, there is an emerging literature base dedicated to explorations of the nature and characteristics of difficulties faced by gifted children in school settings. However, this emergent literature suggests certain levels of disagreements about the extent and impact of problems experienced by gifted individuals (Lajoie & Shore, 1981). In fact, Sebring (1982) proposed that, "As well adjusted as most gifted children are, there remains an alarming number who appear emotionally disturbed or socially maladjusted."

It seems that many bright students do experience difficulty adjusting to existing systems and structures in schools (Betts, 1986; Delisle, Whitmore, & Ambrose, 1987; Johnson, 1981; Rimm, 1987). Davis (1992), for example, presented evidence of identified negative characteristics or traits that creative students may posses, as well as the related, potential problems individuals are likely to experience as an effect (Table 2). Similarly, Renzulli and Reis (1985) addressed negative characteristics that can be associated with giftedness, and included these items in their training activity for the use of the *Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS)* (Table 3). The *SRBCSS* training activity is designed to familiarize teachers with the diverse range of characteristics that may indicate high ability, and to help teachers also recognize several potentially "negative" manifestations as possible indicators of high levels of creativity or learning ability. The traits provided in Table 3 are likely to be interpreted as problem behaviors rather than as indicators of possibly high levels of ability, particularly when contrasted with the identified "critical skills for success" listed in Table 1. Essentially, the complement of characteristics identified in Tables 2 and 3 are incompatible with the teachers' perceptions of positive factors and attributes needed for success listed in Table 1. One example of a possible consequence of these incongruous perspectives was found in a study by Krippner (1977). Krippner found that one out of four children who were receiving medication for being hyperkinetic attained scores, on one or more of the assessment subtests, that would place the child in the "highly creative" category. It appears that the "one out of four" children engaged in behaviors that are more commonly aligned with behavioral problems; thus, would not be a likely candidate for teacher referral for a gifted program. In this case, it appears, being creative led to identification as hyperkinetic, or, what is currently referred to as attention-deficit/hyperactivity disordered (ADHD) (see Table 4). Consequently, creative activity was misinterpreted and abilities were overlooked.

Similarities among the negative characteristics associated with giftedness and behavioral classifications can be demonstrated by the current list of diagnostic criteria for attention-deficit/hyperactivity disorders (ADHD) delineated in the *Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV)* (American Psychiatric Association, 1994). These criteria, provided in Table 4, seem to parallel the behaviors described in Table 2; i.e., the negative characteristics of creative individuals. Further, the criteria for ADHD also seem to overlap with the characteristics included in the *SRBCSS* activity (Renzulli & Reis, 1985) for training professionals to identify creativity (Table 3).

Given this semblance, the inferences drawn from the Krippner (1977) study seem to hold relative merit. That is, the children who scored in "highly creative" levels, yet were identified as hyperkinetic, may have been exhibiting noxious behaviors that are common to both diagnostic categories (i.e., gifted and hyperactive), but are most frequently associated with "nongifted" classifications. Krippner (1977), in fact, stated similar implications: ". . . there is some indication that a school program which geared itself to making the maximum use of these children's creative abilities would have eliminated the need for medicinal treatment" (p. 80).

Table 2

Negative Characteristics of Creative Individuals

• Tends to question laws, rules, authority in general	• Self-centered, intolerant, tactless
• Indifference to common conventions and courtesies	• Stubborn, uncooperative, resists domination
• Sloppiness and disorganization with unimportant matters	• Capricious
• Argues that the rest of the parade is out of step	• Temperamental, moody
• May not participate in class activities	• Emotional, withdrawn, aloof, uncommunicative
• Argumentative, cynical, sarcastic, rebellious	• Overactive physically or mentally
• Forgetful, absentminded, mind wanders, watches windows	• Low interest in details
• Demanding, assertive, autocratic	• Will not join scouts

SOURCE: Davis, G. A. (1992). *Creativity is forever.* Dubuque, IA: Kendall/Hunt Publishing.

Table 3

Potentially Negative Manifestations of Giftedness From *Scales for Rating the Behavioral Characteristics of Superior Students* (SRBCSS) Training Activity

- is uninhibited in expressions of opinion
- is sometimes radical and spirited in disagreement
- is tenacious
- is a high risk taker
- is nonconforming
- is individualistic
- is unwilling to accept authoritarian pronouncements
- asks many provocative questions
- tends to dominate others when they are around
- is easily bored with routine tasks
- prefers to work independently
- often is self assertive (sometimes even aggressive)
- stubborn in beliefs

SOURCE: Renzulli, J. S., & Reis, S. M. (1985). *The schoolwide enrichment model: A comprehensive plan for educational excellence.* Mansfield Center, CT. Creative Learning Press.

Table 4

Diagnostic Criteria for Attention-Deficit/Hyperactivity Disorder

A. Either (1) or (2)
   (1) six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
   Inattention
      (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
      (b) often has difficulty sustaining attention in tasks or play activities
      (c) often does not seem to listen when spoken to directly
      (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
      (e) often has difficulty organizing tasks and activities
      (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
      (g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
      (h) is often easily distracted by extraneous stimuli
      (i) is often forgetful in daily activities
   (2) six (or more) of the following symptoms of **hyperactivity-impulsivity** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
   Hyperactivity
      (a) often fidgets with hands or feet or squirms in seat
      (b) often leaves seat in classroom or in other situations in which remaining seated is expected
      (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
      (d) often has difficulty playing or engaging in leisure activities quietly
      (e) is often "on the go" or often acts as if "driven by a motor"
      (f) often talks excessively
   Impulsivity
      (g) often blurts out answers before questions have been completed
      (h) often has difficulty awaiting turn
      (i) often interrupts or intrudes on others (e.g., butts into conversations or games)
B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
C. Some impairments from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.
E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder, and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

SOURCE: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (DSM-IV)* (4th ed., revised). Washington, DC: Author.

Interestingly, the characteristics addressed by Davis (1992), Renzulli and Reis (1985), and the *DSM-IV* (1994) reveal striking similarities to the target behaviors used in the identification of emotional and behavioral disorders (EBD). Although the language or terminology differ somewhat, items listed in Tables 2 and 3 compare categorically with characteristics ascribed to students with potential behavioral problems or EBD (Table 5); and can be compared with descriptors of EBD, *particularly* though not exclusively parts (b), (c), and (d), as presented in the federal definition for seriously emotionally disturbed (Table 6), i.e., the national standards used to identify students with EBD.

Table 5

Possible Signs or Characteristics of Behavioral Disorders and Emotional Disturbance

- Few or no friends
- Problems with family relations
- Problems with relationships with teachers
- Hyperactive behavior, exhibited by excessive movement
- Aggression toward self or others
- Impulsivity
- Immature social skills
- Feelings of depression and unhappiness
- Withdrawal into self
- Anxiety or fearfulness
- Ideas of suicide expressed
- Distractibility or inability to pay attention for a length of time comparable to peers

SOURCE: Smith, D. D., & Luckasson, R. (1992). *Introduction to special education.* Boston: Allyn & Bacon.

Table 6

Federal Definition: Seriously Emotionally Disturbed (Education of the Handicapped Act, Section 121a.5)

(i) A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance:
   (a) An inability to learn which cannot be explained by intellectual, sensory, or health factors;
   (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
   (c) Inappropriate types of behavior or feelings under normal circumstances
   (d) A general, pervasive mood of unhappiness or depression; or
   (e) A tendency to develop physical symptoms or fears associated with personal or school problems.

The term includes children who are schizophrenic. The term does not include children who are socially maladjusted, unless it is determined that they are seriously emotionally disturbed.

SOURCE: Nelson, C. M., Rutherford, R. B., Center, D. B., & Walker, H. M. (1991). Do public schools have an obligation to serve troubled children and youth. *Exceptional Children, 57,* 406-413.

Educators are most frequently exposed to information concerning emotional or behavioral characteristics of children and youth as part of the traditional, preservice special education survey course. As is common in general overview courses and texts, however, the manner in which such information is presented tends to be specious; i.e., the full complement of special education information is addressed in a single academic term. Typically, the analysis of problematic characteristics of children and youth is presented in and restricted to the context of EBD. As a result, teachers may be predisposed to view troublesome characteristics as unique signs of emotional disturbance rather than as indicators of problems with a range of underlying factors, including characteristics of creativity or advanced learning.

In retrospect, the observations of Sebring (1982) may personify a substantial challenge faced in the process of identifying and, subsequently, meeting the needs of gifted children in schools. This seems a particularly evident quandary for discerning the bright students who also have overt behavioral problems or ". . . appear emotionally disturbed or socially maladjusted" (Sebring, 1982). Consider the common circumstance within schools whereby: (a) the primary source for identification is teacher referral, and (b) the school or system typically ascribes to the belief "that individuals who are gifted are those who, by virtue of their extraordinary abilities, consistently exceed expectations across the range of developmental dimensions". . . or that "when a child is not well adjusted, morally advanced, healthy, and so on, then he or she cannot be gifted." It is probable, therefore, that children and youth who exhibit irritating behaviors are less likely to be presumed gifted by their teachers, and are more likely to be misidentified and overlooked for appropriate [gifted] services.

School-Based Issues

Davis and Bull (1988) suggested that gifted children and youth frequently are self-sufficient, nonconformist, and independent thinkers who adamantly believe in one's right to control his or her own destiny. Skrtic (1992), however, characterized schools as agencies in which conformity is heralded, and convergent rather than divergent thinking is emphasized, despite publicly stated counter claims and promotions. It is in this context that the potential for dissonance between the gifted individual and the attitudinal environment of the school can be examined; i.e., elements within the school environment can be explored as possible contributors to students' behavioral and learning challenges.

As noted, the manifestations of school-based difficulties experienced by gifted students tend to resemble the traits associated with EBD and ADHD. In general, these characteristics reflect a number of negative behaviors that are in direct conflict with teachers' perceptions of the critical student success factors identified in Table 1. The summarized, cross-categorical analysis of descriptors (Figure 1) demonstrates the common bond among the negative manifestations of creativity/giftedness and behaviors associated with classifications of behavioral problems. Although these categories are accepted as mutually exclusive populations, it would seem that a number of students identified as EBD or ADHD may be individuals who are presenting their giftedness in an alternative manner. This is particularly interesting when commonalties are contrasted with teachers' perceptions of skills needed for success in school (Figure 1, column one). The potential for dissonance between the gifted individual and the school environment and/or teachers' expectations becomes clearer. Thus, when considered in the context of school environments, it is likely that the negative connotations of giftedness and creativity may be misinterpreted as signs of other exceptionalities while the gifted/creative aspects of the individual tend to be overlooked. Indeed, it seems that the broad and vague nature of some descriptors of problem behavior must, by definition, include creative individuals.

Skills Considered Critical for Success in the Regular Classroom (Kauffman, 1993)	Negative Characteristics of Creative Individuals (Davis, 1992)	Potentially Negative Manifestations of Giftedness (Renzulli & Reis, 1985)	Diagnostic Criteria for Attention-Deficit/ Hyperactivity Disorder (DSM-IV, 1994)	Possible Signs or Characteristics of Behavioral Disorders and Emotional Disturbance (Smith & Lukasson, 1992)	Federal Definition: Seriously Emotionally Disturbed (EHA, Section 121a.5) (Nelson, Rutherford, Center, & Walker, 1991)
COMPLIANCE	**NONCOMPLIANCE**				
Follows established classroom rules Listens to teacher instructions Complies with teacher commands Does in-class assignments as directed Observes rules governing movement around the room Responds to requests and directions promptly	Tends to question laws, rules, authority in general Stubborn, uncooperative, resists domination Argues that the rest of the parade is out of step	Is nonconforming Is individualistic Is unwilling to accept authoritarian pronouncements Asks many provocative questions	Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework) Often talks excessively Often blurts out answers before questions have been completed	Problems with relationships with teachers	An inability to build or maintain satisfactory interpersonal relationships with teachers
APPROPRIATE BEHAVIOR	**INAPPROPRIATE BEHAVIOR**				
Avoids breaking classroom rule(s) even when encouraged by a peer Makes her/his assistance needs known in an appropriate manner Copes with failure in an appropriate manner Can accept not getting his/her own way Expresses anger appropriately Behaves appropriately in nonclassroom settings	Capricious Overactive physically or mentally Demanding, assertive, autocratic	Is uninhibited in expressions of opinion Is sometimes radical and spirited in disagreement Is tenacious Is a high risk taker Often is self-assertive (sometimes even aggressive)	Often fidgets with hands or feet or squirms in seat Often leaves seat in classroom or in other situations in which remaining seated is expected Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness) Is often "on the go" or often acts as if "driven by a motor"	Hyperactive behavior, exhibited by excessive movement Aggression toward self or others Impulsivity	Inappropriate types of behavior or feelings under normal circumstances Tendency to develop physical symptoms or fears associated with personal or school problems

Figure 1. Comparison of characteristics among creative,gifted, EBD, and ADHD.

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Skills Considered Critical for Success in the Regular Classroom (Kauffman, 1993)	Negative Characteristics of Creative Individuals (Davis, 1992)	Potentially Negative Manifestations of Giftedness (Renzulli & Reis, 1985)	Diagnostic Criteria for Attention-Deficit/ Hyperactivity Disorder (DSM-IV, 1994)	Possible Signs or Characteristics of Behavioral Disorders and Emotional Disturbance (Smith & Lukasson, 1992)	Federal Definition: Seriously Emotionally Disturbed (EHA, Section 121a.5) (Nelson, Rutherford, Center, & Walker, 1991)
LEARNING READINESS OR PREPAREDNESS	**LACK OF READINESS OR PREPAREDNESS FOR LEARNING**				
Can follow teacher-written instructions and directions Produces work of acceptable quality given his/her skill level Has good work habits (e.g., makes efficient use of class time, is organized, stays on task) Uses academic tools correctly Uses classroom equipment and materials correctly Attends consistently to assigned tasks Improves academic or social behavior in response to teacher feedback Questions rules, directions, or instructions that are not clear to her/him Has independent study skills	Sloppiness and disorganization with unimportant matters Forgetful, absentminded, mind wanders, watches windows Low interest in details May not participate in class activities	Is easily bored with routine tasks Prefers to work independently	Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities Often has difficulty sustaining attention in tasks or play Often does not seem to listen when spoken to directly Often has difficulty organizing tasks and activities Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools) Is often easily distracted by extraneous stimuli Is often forgetful in daily activities	Distractibility or inability to pay attention for a length of time comparable to peers	An inability to learn which cannot be explained by intellectual, sensory, or health factors

Figure 1. Comparison of characteristics among creative, gifted, EBD, and ADHD. (continued)

Skills Considered Critical for Success in the Regular Classroom (Kauffman, 1993)	Negative Characteristics of Creative Individuals (Davis, 1992)	Potentially Negative Manifestations of Giftedness (Renzulli & Reis, 1985)	Diagnostic Criteria for Attention-Deficit/ Hyperactivity Disorder (DSM-IV, 1994)	Possible Signs or Characteristics of Behavioral Disorders and Emotional Disturbance (Smith & Lukasson, 1992)	Federal Definition: Seriously Emotionally Disturbed (EHA, Section 121a.5) (Nelson, Rutherford, Center, & Walker, 1991)
INTERPERSONAL RELATIONSHIPS OR SOCIAL SKILLS	**INTERPERSONAL RELATIONSHIPS OR SOCIAL SKILLS DIFFICULTIES**				
Listens while other students are speaking Respects property and the rights of others Is honest with others	Self-centered, intolerant, tactless Indifference to common conventions and courtesies Temperamental, moody Emotional, withdrawn, aloof, uncommunicative Argumentative, cynical, sarcastic, rebellious Will not join scouts	Tends to dominate others when they are around Stubborn in beliefs	Often has difficulty playing or engaging in leisure activities quietly Often has difficulty awaiting turn Often interrupts or intrudes on others (e.g., butts into conversations or games)	Few or no friends Problems with family relations Immature social skills Feelings of depression and unhappiness Withdrawal into self Anxiety or fearfulness Ideas of suicide expressed	An inability to build or maintain satisfactory interpersonal relationships with peers A general, pervasive mood of unhappiness or depression
SOURCE: Kauffman, J. M. (1993). *Characteristics of emotional and behavioral disorders of children and youth* (5th ed.). New York: Macmillan Publishing, Merrill.	**SOURCE:** Davis, G. A. (1992). *Creativity is forever.* Dubuque, IA: Kendall/Hunt Publishing.	**SOURCE:** Renzulli, J. S., & Reis, S. M. (1985). *The schoolwide enrichment model: A Comprehensive plan for educational Excellence.* Mansfield Center, CT: Creative Learning Press.	**SOURCE:** American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.	**SOURCE:** Smith, D. D., & Luckasson, R. (1992). *Introduction to special education.* Boston: Allyn & Bacon.	**SOURCE:** Nelson, C. M., Rutherford, R. B., Center, D. B., & Walker, H. M. (1991). Do public schools have an obligation to serve troubled children and youth? *Exceptional Children,* 406-413.

Figure 1. Comparison of characteristics among creative,gifted, EBD, and ADHD. (continued)

Many professionals have proposed that the routine institutionalization of standardized practices and expectations reduces a school's sensitivity to individual differences and individual development (Hersh & Walker, 1983; Kauffman, 1993; Kerr & Zigmond, 1986; Kirk, 1972; Walker & Rankin, 1983). Efforts to strive for a common set of standards and expectations for students can have the effect to either "inhibit or punish healthy expression of individuality" (Kauffman, 1993, p. 236). For example, schools commonly use such practices as: (a) age-grade placements, i.e., students of the same age are placed the same grade regardless of learning levels and needs; (b) common curricula within grade placements; (c) moderated presentations, i.e., material is presented in a standard format and pace; (d) instructional content that is not relevant or functional for students; and (e) a system of threats and rewards designed to manipulate social and academic behaviors (Brophy, 1981; Davis & Bull, 1988; Kauffman, 1993).

Insensitivity to individual abilities increases the likelihood that students who do not "fit" the common regimen will experience frustration and discomfort (Mayer, Nafpaktitis, Butterworth, & Hollingsworth, 1987). Under such circumstances, students may seek alternative ways to independently explore and develop personal potential; ways that are likely to be in conflict with general operating procedures of the school (Kasen, Johnson, & Cohen, 1990; Kauffman, 1993; Mayer et al., 1987; Reynolds, Wang, & Walberg, 1987). Such alternative outlets often are manifested as verbal and/or physical aggression, hostility, resentment, defiance, or passively resistant behaviors (Mayer et al., 1987).

It has been postulated that some degree of the learning and behavioral problems children manifest in school may be attributed to the noted practices that promote conformity and inhibit individuality (Delisle et al., 1987; Kauffman, 1993; McKinnon, 1962, 1978; Reynolds et al., 1987). Kauffman (1993) proposed that schools in which conformity is encouraged and individuality is repressed contribute to learning and behavioral problems rather than facilitate "optimum development" (p. 237). According to Kauffman, such a school climate eventually leads children to believe that to "be yourself" is inappropriate and unacceptable which, in turn, fosters negative attitudes and perceptions of the self and the school. These are circumstances that ultimately weaken intellectual efficiency and motivation (Kauffman, 1993).

Several professionals have identified the conformity, rigidity, and commonalty promoted in school programs as problematic for children. Essentially, schools serve to discourage, rather than support, naturally differential development. Nevertheless, it is through such efforts that schools engage in practices which inadvertently highlight the differences among student populations; attention is drawn to the nonconforming or nonperforming individual, frequently in modes of reprisal or punishment. Such practices can lead to confusion, anxiety, frustration, and the inability to choose appropriate response options (teacher-pleasers), particularly for the self-sufficient, nonconformist, independent thinker described by Davis and Bull (1988). As a consequence, the incentive to perform well or comply with procedures is reduced (Kauffman, 1993).

Among other school-based concerns, issues related to teaching-learning interactions and curricular content have been discussed. One commonly debated, yet critical consideration is the extensive use of extrinsic rewards for learning (Kohn, 1994). According to Kohn, extrinsic contingencies involve the use of a behavioral approach that focuses on (a) teacher-centered tasks, and (b) systematic procedures to reward success and punish failure with respect to those tasks. Kohn suggests that such a focus promulgates external reasons to learn, which can, ultimately, remove the authentic rationale for learning. Under such circumstances, it is unclear whether the child has learned new information, or, instead has learned how to engage in behaviors that result in positive feedback/rewards (Kohn, 1993, 1994). It has been proposed that some students learn to "play the system"

and have little or no regard for the positive or negative connotation of the contingencies (Kauffman, 1994). The interaction frequently becomes a challenge to manipulate the teacher, setting, and even classmates for the chance to gain any form of attention, to exercise situational control, or, merely as a means to provide personal entertainment (Kauffman, 1994). Regardless of the motive, a likely outcome is disruption to the learning process and environment. Thus, the effect is counterproductive to the intent; i.e., extrinsic contingencies can actually increase the use of inappropriate behaviors or noncompliance (Kauffman, 1994; Kohn, 1993).

In a related mode, the literature is replete with studies regarding the impact of extrinsic contingencies on children that is due to inconsistent applications of both rewards and punishments. One example would be the child who engages in a behavior (academic or social) on one occasion, and experiences no teacher response; yet, on another occasion, may receive punishment for the same behavior. In another instance, a child might receive positive feedback for a given academic or social behavior, then, in the event of a later occurrence, the equivalent behavior is ignored or even punished. Under such circumstances, the child is unable to predict adults' expectations or their responses to certain actions. Thus, children are led to also act in an inconsistent manner (somewhat of a trial and error approach) which, in turn results in frequent episodes and even learned patterns of inappropriate responses (Hetherington & Martin, 1986; Kauffman, 1993).

Standardized achievement tests have long endured a status of controversy. In recent years, this controversy has expanded as school systems have implemented procedures to utilize standardized measures in realms not originally within the design and intent of the tests (Salvia & Ysseldyke, 1985; Sattler, 1988). One issue is the increased use of achievement tests as the basis for performance comparisons and evaluations of teacher competence. In essence, teacher effectiveness has become more distinctly entwined with students' performance on standardized measures. Teachers extensively have responded to such movements by focusing explicit attention to the preparation of students for not only test situations, but for particular tests. An incidental, nonetheless significant effect of this response has been on the content of instructional programs, as well as the methodology of presentation. In fact, some would argue that the renewed emphasis on teacher-centered tasks and extrinsic rewards and punishments is a reflection of the need to ensure higher test performances. Regardless, the outcome is a shift to an academic emphasis on the acquisition of facts and lower level knowledge; e.g., information contained in general standardized tests; much of which is irrelevant to the lives of children. Kauffman discusses the relationship between curricular or learning goals and problem behavior:

> One way the school increases the probability that students will misbehave or be truant is in offering instruction for which pupils have no real or imagined use. Not only does this kind of education fail to engage students, but it also hinders their social adaptation by wasting their time and substituting trivial information for knowledge that would allow them to pursue rewarding activities. (Kauffman, 1993, p. 200)

Certainly, there are numerous, additional factors that can be considered contributory to learning and behavioral challenges that school children face. Included would be the wide range of environmental, cultural, and social/emotional variables, as well as inherent attributes. Nonetheless, there are disturbing implications to be drawn from Kauffman's perspective, particularly in the realm of gifted education. As noted, Davis and Bull (1988) highlighted the need for many children and youth who are gifted to behave in a self-sufficient, nonconformist, and independent manner. However, if one accepts the premise that schools largely focus on promoting uniformity and compliance, and that curricula lean toward the irrelevant, there is a predictable level of dissonance to be expected among school

settings and personnel and the independent, challenging child. Thus, the school environment seems to serve as a significant factor in examining difficulties encountered by both identified and nonidentified gifted children.

Nevertheless, current research in the dimension of school-based issues has been conducted primarily in the fields of learning disabilities (LD), EBD and ADHD. It is logical that this has occurred since these exceptionalities are more commonly associated with dissonance between individual students and some level of school functions. Through this growing body of research, professionals have begun to question whether or not students are either included or excluded from special education and related services, including gifted education, as an interaction effect (i.e., dissonance with the setting, personnel) rather than as an effect of their actual abilities/disabilities (Reynolds et al., 1987). In other words, to what extent are students identified and placed on the basis of "true" abilities/disabilities or on the basis of functional disabilities?

It has become increasingly difficult to differentiate the child who has special needs from the child whom a teacher or teachers perceive to have special needs; i.e., the child who does not adapt to or fit teachers' pictures of success (functional disabilities). Possibly, schools and educators have become more adept at appropriate identifications; or, perhaps teachers are more willing to refer students with academic or behavioral differences. Still, the numbers referred for special education evaluations have increased, and the referral numbers are not significantly discrepant from the numbers of eventual placements (Gallagher, 1988). These factors are among the fundamental issues underpinning current overidentification or misidentification concerns (Gallagher, 1988).

In the context of identification issues, a similarly troubling matter is the general increase in the identification of students with ADHD. Despite controversy regarding the "true" definition of ADHD (e.g., clinical vs. school-based rationales), hyperactivity has become one of the most prevalent reasons for children to be referred for comprehensive evaluations or clinical interventions (Kauffman, 1989). Kauffman elucidates and offers that students who have high activity levels, but engage in socially acceptable behaviors and achieve academically, typically are not referred. Such students tend to be characterized as "energetic, enthusiastic, hard working, or brilliant" rather than as hyperactive (p. 228). In contrast, the student who displays negative, socially unacceptable behaviors in addition to high levels of activity is more likely to be considered ADHD.

As noted, one considerable concern implicit in this trend is that many of the characteristics of highly creative children are the same as the characteristics of students with ADHD. It can be expected, therefore, that if the presenting characteristics are misinterpreted, the subsequent referral might be misdirected; i.e., diverted from gifted toward behavioral classifications. Under these conditions, it is probable that "Creative children with exogenous behavioral disorders are among those whom the schools may fail to help" (LaVaine & Evans, 1983, p. 31).

Gifted Students, Underachievement, and Troublesome Behaviors

Professionals in the field have recognized that students who are gifted are not, by nature of their giftedness, immune to the difficulties and problems present in school settings, e.g., rigidity of rules, uniformity, and conformity. Professionals have acknowledged that gifted students often experience difficulties that are manifested in performance and/or behavioral problems (Davis & Bull, 1988; Delisle et al. 1987; MacKinnon, 1978; Rimm, 1987; Sebring, 1982; Strang, 1960; Whitmore, 1980, 1985). There is evidence to suggest that as high as 45% of identified gifted children with IQ scores above 130 also have grade point averages that are lower than average (Johnson, 1981). It

is further disturbing to note that among the population of high school dropouts as many as 14% were determined to have IQ scores in excess of 130 (Johnson, 1981). One could speculate on whether or not these students would have dropped out of school had their actual abilities and learning needs been met. Nonetheless, in spite of evidence to the contrary, the image persists that individuals who are gifted are will succeed in spite of environmental influences.

Swift and Spivak (1968, 1969, 1973, 1975) conducted extensive research with elementary and secondary school students as a means to examine the phenomenon of underachievement. Their findings revealed that underachieving students tend to experience difficulty in adapting to the demands of the classroom/school environment. In addition, the research of Swift and Spivak and others has consistently identified a constellation of maladaptive behaviors that tended to coexist with underachievement. Included among the identified behaviors were characteristics such as: inattentive, a tendency to withdraw from class activity; impatient; disruptive, e.g., involvement in behaviors requiring teacher control such as teasing, annoying, or interfering with others; impulsive; attentional difficulties; highly opinionated and dogmatic, unreceptive to others' opinions; and nervous, anxious, or socially withdrawn (Shinn, Ramsey, Walker, Steiber, & O'Neill, 1987; Swift & Spivak, 1968, 1969, 1973, 1975; Walker & McConnell, 1988).

Although the causal relationship between academic performance and classroom behavior is debated, there is little dispute that classroom performance is not solely reliant upon innate ability or competence (Kauffman, 1993). Delisle et al. (1987) noted that several variables contribute to behavioral problems among gifted students, but emphasized that the majority of problems are developed in response to inappropriate curricula and instructional methods, or the social climate created by the teacher and classroom peers. Related literature supports this notion and suggests that the traditional school environment is often difficult for the highly creative child. In fact, many identified gifted students who persist in defiance of school protocol and classroom rules or engage in disruptive or noxious behaviors are dismissed from gifted programs.

Gifted Students and Disabilities

In recent years, the position that giftedness exists as a mutually exclusive exceptionality has been challenged; researchers have initiated investigations beyond the context of traditional, stereotypical perspectives. Gradually, the field of gifted education has recognized and accepted that students with disabilities also can be gifted and talented. A research needs assessment conducted by The National Research Center on the Gifted and Talented found that practitioners identified underachievement and behavior disorders as important areas for research (Reid, 1991). Two major projects, funded by grants through the Jacob K. Javits Education Student Act of 1988, address the nature of and programming for gifted students with disabilities. Both projects are based on the premise that there exists a significant population of gifted students who have been traditionally underserved due to their initial classifications in disability categories. One project, the Twice-Exceptional Child Project, was collaboratively developed by the Albuquerque Public Schools and the University of New Mexico. A second program is Project High Hopes based in Hamden, Connecticut. These national demonstration projects illustrate a growing awareness of the need to recognize and serve students with disabilities in gifted education.

The exploration of giftedness in relationship to other exceptionalities [disabilities] is one permutation of this recent outlook. Particular concern has been devoted to students with LD (Baum, 1984, 1994), and has involved examinations of the characteristics and needs of students with coincident high-ability and learning disabilities (Baum, 1994; Baum, Emerick, Herman, & Dixon, 1989; Baum, Owen, & Dixon, 1991; Neu, 1993; Reis, New,

& McGuire, 1995; Whitmore & Maker, 1985). The more current and controversial issue addresses bright students who are behaviorally involved; i.e., those who are identified as ADHD or otherwise experience significant behavioral problems. Clearly, one of the most controversial categories to be examined is the area of EBD.

Historically, there has been considerable support for the notion that individuals with EBD are characterized by low-average to below average ranges of general intellectual ability (Armstrong, Henson, & Savage, 1993; Cullinan, Epstein, & Lloyd, 1981; Hallahan & Kauffman, 1991; Kauffman, 1993). Within the field of EBD, there exist numerous theories to explain the patterns of low academic functioning and achievement among children and youth with emotional or behavioral disorders, largely reflective of low-ability postures. From this perspective, depressed achievement in school tends to be accepted as a logical extension of the general ability characteristic of students with EBD, thus as a symbiotic factor in emotional and behavior disorders. In recent years, however, this notion has been challenged. There is emerging belief that children and youth with EBD demonstrate a range of intellectual abilities, that underachievement is a pervasive concern, and that many of these students may be quite bright (Cullinan, Epstein, & Lloyd, 1981; Hallahan & Kauffman, 1991; Kauffman, 1993).

The position presented in this paper suggests that children and youth who exhibit characteristics typically associated with EBD or ADHD, whether or not labeled as such, are routinely overlooked for services as gifted. Several issues related to intellectual ability and behavioral characteristics have been raised, as well as those related to the impact of school-based policies and procedures. Further examination warrants a brief discussion of the rationales embedded in traditional perspectives and processes embraced in school environments.

Identification, Reification, and Assessment Issues

The concurrence of philosophically opposed initiatives within a profession often creates confusion and varying degrees of personal dissonance. Literature concerning the impact of change on systems suggests that in the midst of confusion, individuals often tend to resist imminent changes and remain loyal to familiar, standard operating procedures. In education, for example, current trends encourage the educator to embrace the notion of full inclusion in general education programs in place of pull-out or self-contained classrooms for all students with disabilities. Concurrently, there is a trend among education professionals and individuals with disabilities to engage in efforts to create additional categorical classifications of exceptionality, to create additional "special" programs, and to secure federal acknowledgment of and legislative support for the new disability category (e.g., ADHD). In this example, there has been an anticipated reaction; a formidable number of education professionals have chosen to seek familiar territory, adhere to traditional practices, and employ comfortable procedures for analyzing the special needs of individuals. In an effort to retain a logical balance, educators remain loyal to the categorical definitions and classification policies that have guided special education procedures for several years. As a result, educators and others charged with the identification of students with special learning needs continue to rely on distinctions among populations of children and youth, and to ignore the similarities that may exist.

Underpinning federal special education laws (P.L. 94-142; The Individuals with Disabilities Education Act [IDEA]) is the intent to provide appropriate educational modifications and assistance for students who do not appear to benefit from general education programs. Thus, when a student is referred for a comprehensive evaluation, there is an assumption that evaluation outcomes will determine whether or not a student may need some form of specialized assistance (i.e., modifications, special education or

related services). Through this prescribed process, decisions regarding appropriate placements and categorical label assignments emerge as post-evaluation outcomes and serve as the means for students to access appropriate assistive programs. However, in the reality of educational practice, the suspected *label* commonly is assigned apriori, as an implied aspect of the referral process (Skrtic, 1992). Essentially, children and youth are referred for specific categorical programs versus referral (as intended under P.L. 94-142) for comprehensive evaluations of individual learning needs. When this occurs, the evaluation process becomes a diagnostic scavenger hunt to validate the presence of characteristics associated with the [suspected] label, rather than an analysis of all presenting characteristics of the learner. Thus, the evaluation process is driven by the label/placement goal and not driven by the particular learning needs of the student (Meyen & Skrtic, 1988).

There is an old adage that "you find what you are looking for." For example, when one experiences localized pain, a physician will examine the patient to identify possible contributors to that specific pain. It is unlikely that a comprehensive medical examination would ensue. Similarly, if a child is referred for suspected learning or behavioral disorders or for possible giftedness, the diagnostic process typically focuses on whether or not the child exhibits the characteristics associated with the suspected classification. Assessment materials and diagnostic procedures are organized in alignment with suspicions, rather than as a means to provide a broad view of a child's levels of ability and performance. Consequently, evaluation results which yield the absence of specified categorical characteristics generally lead to the conclusion that (a) the child is not eligible for special services and (b) it is appropriate for the child to remain in the general education program. Under the present system, therefore, students typically are offered special education services on the basis of determined needs when those needs "fit" the suspected classification. It is uncommon for the global results to be examined in the context of *other* learning or behavioral differences (Meyen & Skrtic, 1988; Skrtic, 1992). Rather, despite acknowledgement of the descriptive similarities among various special education classifications, professionals systematically continue identification, intervention, program development, and research as though categorical groups are distinct (McGuire, 1988). As a result, the broad view of the child's abilities may be overlooked and students with unique needs can be functionally excluded from appropriate special services; i.e., students referred for one category may be overlooked for services in another.

In this manner, professionals charged with identifying appropriate educational services tend to use only those identification procedures specific to the exceptionality in question. The efficacy of this process is further compromised when referrals for evaluations are based almost exclusively on teacher recommendations. The challenge arises with the presumption of individual teacher's knowledge and expertise in understanding and recognizing nuances of actual disabilities and disabling circumstances. In general, it is assumed that teachers are astute in their abilities to discern: (a) the presenting characteristics, (b) the relationships among characteristics and exceptionalities, and (c) the relative significance and impact of both (a) and (b) on the learner in the past, at present, and in the future. There is reason to doubt that educators develop this level of evaluative savvy through one survey course in special education. Thus, it is probable that when educators encounter the obnoxious, difficult child they may well form misguided judgments (McGuire, 1988).

The aforementioned factors seem to hold significance in the identification of high ability students, when the students also have behavioral problems. It has been noted that in the field of EBD, one dominant concern in efforts to identify students with concurrent high ability and behavioral problems is intellectual development. For example, Kauffman (1993) indicates that diagnostic profiles of children and youth with emotional or behavioral disorders suggest most tend to fall in the 90 to 95 range of IQ on measures of intellectual

ability (1993). This perspective can entice general and special educators to view giftedness and EBD as mutually exclusive exceptionalities. However, there is additional evidence to indicate that students with EBD tend to perform poorly on standardized measures of ability (Kauffman, 1994); e.g., behavioral factors in the classroom, attitudinal issues in the assessment setting, and cumulative effects of poor academic engagement. Further, as an effect of the EBD disability, students often unpredictably engage and disengage in learning opportunities, resulting in inconsistencies in academic skills and knowledge foundations. Similarly, creative students often perform below ability levels due to comparable factors. In fact, high ability students may fail to learn basic skills "in response to what the creative child perceives as unchallenging, boring, and repetitive school tasks" (LeVaine & Evans, 1983, p. 29). In either case, the resultant deficits may mask the actual abilities of the child and lead educators to believe the child is not capable of advanced performance.

The constellation of variables that appear to impact on the identification of bright, creative students suggest the need to continue to examine the relationship between giftedness and disordered behaviors. The domains of underachievement, academic performance, behavioral patterns, and characteristics of hyperactivity all appear to have some levels of congruence or consistency across exceptionalities, despite apparent efforts to promote exclusiveness.

Current and Future Challenges

A primary difficulty in identifying and working with high-ability students who have behavioral problems is the paucity of research on this population. Currently, there are little or no data to effect change in assessment practices, the teaching-learning interaction, intervention, or general classroom procedures. Further, there is an absence of data to suggest ways in which an educator can recognize, and then meet the needs of the bright, behaviorally involved student. The literature on students with EBD suggests that these individuals are below average in ability (Hallahan & Kauffman, 1991); literature in the field of gifted frequently refers to the students who attain IQ scores in excess of 130. Literature concerning behavioral disorders emphasizes inappropriate behaviors, contrasted with the view of gifted students as pervasively superior to those who are typical or "nongifted." And yet, conversations with teachers of the gifted invariably elicit cases of bright students who exhibit emotional or behavioral disorders, while teachers of students with EBD denounce the low scores attained by their students on measures of ability and achievement.

The lack of research and subsequent literature would suggest that more information is needed regarding students who could classify as both bright and as behaviorally problematic. As increasing numbers of troubled youth are identified as possessing high ability, teachers will need practical, relevant information about this population. Research is needed not only in areas that clarify the characteristics of this population, i.e., assists teachers in the identification of bright individuals who are emotionally or behaviorally disordered; but also in effective assessment practices, curriculum development, and in the use of positive intervention strategies.

Conclusions/Recommendations

A major premise in this review of literature is that there is a significant population of high ability students who are overlooked for gifted education or are placed in alternative special education programs due to their troubling, overt academic deficits or inappropriate social behaviors. The logical extension of this premise is that teachers tend to be

predisposed to view negative characteristics of children and youth as indicators of behavioral disabilities (e.g., EBD, ADHD), rather than as potential signs of creativity or advanced learning ability.

A number of variables that contribute to behavioral problems among high-ability students have been identified. In addition, several related practices that serve to conceal the actual abilities of bright, behaviorally involved students have been addressed. In summary, critical practices to be considered include:

- lack of challenging and relevant content/curricula
- use of inappropriate instructional approaches/strategies
- use of extrinsic rewards and punishments for learning and classroom or behavior management
- maintenance of climate that encourages conformity and convergent thinking (vs. divergent)
- insensitivity to individual differences
- emphasis on restricted, categorical labeling, and
- deemphasis of environmental, cultural, and social/emotional variables.

Based on this review of the literature there are several recommendations that seem justified. It is proposed that one crucial consideration is the need for the recommendations to be addressed both by public schools and by university teacher education programs. Schools, essentially, are responsible for implementing appropriate changes; universities are responsible for the basic preparation of teachers. Therefore, if change in educators' perspectives and practices is to occur, schools and universities will need to devise inservice and preservice programs that will enable educators to (a) recognize/identify this underserved group of high-ability children and youth, and (b) learn and use appropriate practices to meet their unique needs.

The development and use of building-based support teams (BBSTs) offers a promising approach to assist teachers who work with bright students with behavioral problems. Currently used in a growing number of schools, BBSTs have shown to be beneficial to a wide range of students, across general and special education, as well as to their teachers. The team approach creates a cooperative venue for teachers with varying levels of expertise to collaborate on issues of identification, to determine appropriate educational environments and methodologies, to develop and evaluate curricula, to determine performance and evaluation criteria, and to generate and provide suggestions for possible interventions.

Given that the goal is to identify and serve gifted students with behavioral problems, a second consideration is the routine inclusion of individuals with training in gifted education in processes of decision-making for students in special education. This would introduce into the interaction an individual trained to recognize or identify characteristics indicative of creativity or high ability. The two Javits projects discussed previously (Twice-Exceptional Child Project and Project High Hopes) deserve considerable attention as models for this integrated teaming.

In the Twice-Exceptional Child Project training model, collaborative interaction among school and university personnel is emphasized as a key component. Participants selected for the training program must represent a school system-university partnership. During the summer institute, school and university faculty receive training together as collaborative teams. Teams endeavor to devise systematic procedures to develop and implement programming for students who are dually qualified as disabled and gifted through direct applications of research and knowledge of practices. Further, the teams

generate an interdependent plan to integrate child-programming practices and the preparation of inservice and preservice teachers. Such activities might include mentorships, teacher exchanges, collaborative program planning and evaluations, and research opportunities.

The summer institute offered by Project High Hopes trains teachers to identify and nurture giftedness in students who have been identified for other special education classifications. The institute is conducted concurrently with the Project's summer program for children and youth with dual exceptionalities. Teachers who participate in the institute are actively engaged in work with the children and other teachers in "real" classrooms. In this manner, participants are trained in curriculum development, the use of specialized activities and strategies, collaboration and consultation, and in procedures to access and use a range of available resources. The Twice-Exceptional Child Project and Project High Hopes offer valuable models for the development of programs designed to meet the needs of a dually qualified population of children, as well as for methods to prepare educators and school systems to implement such programs. For additional information about either of these projects, contact: Dr. Elizabeth Nielson (Twice-Exceptional Child Project, The University of New Mexico, Albuquerque, NM); or Dr. Terry Neu (Project High Hopes, ACES, New Haven, CT).

Current practices and research, therefore, provide sufficient support for further exploration of ways in which to locate and serve the "hidden" gifted child. The underpinning issue clearly relates to interdisciplinary training for both preservice and inservice educators. Essentially, there is a need to dispel traditional, polarized perspectives on giftedness, ADHD, and EBD, and to stimulate a reconstruction of philosophy and practice. This agenda, unquestionably, is a task of great magnitude; thus, it would be advantageous for schools and universities to pool resources to then collaboratively design and implement teacher education/staff development programs.

It is recognized that there are particular themes that are recommended as components in a comprehensive training program. The ensuing list entails the themes, or conceptual domains, prescribed for a program to prepare educators to effectively work with this unique, underserved population of high-ability children and youth. Emphasis is on the acquisition of information and strategies that will enable educators to incorporate an understanding of, as well as to plan and implement, diverse instructional strategies.

1. *The nature and needs of high-ability children and youth.* Information pertinent to current definitions, characteristics, and researched-based interventions designed to develop talent in children should be included.
2. *The nature and needs of students with behavioral problems.* Information that reflects current definitions, characteristics, and research-based interventions designed to help children and youth develop internal control systems for producing appropriate academic and social behaviors.
3. *Classroom management.* Methods to develop intrinsic motivation rather than reliance on extrinsic threats and rewards. Methods to resist use of the "curriculum of control" strategies that defeat efforts to help children with behavioral problems learn to monitor and control themselves.
4. *Problem solving, creativity, and decision making.* Methods to help students learn to identify problems, develop alternative strategies, determine the consequences of multiple alternatives, and to select and apply a solution.
5. *Instruction based on individual needs.* Methods or instructional strategies, such as curriculum compacting, to plan instruction that meets the needs of individual students; e.g., methods to better ensure curricula are relevant,

and that bright students do not repeat lessons/information/skills previously mastered.

6. *Activities to add stimulation and interest to instruction.* Instructional strategies such as simulations and interest-based lessons to encourage students to actively participate in learning rather than perform as passive receivers of knowledge.
7. *Learning styles and preferences.* Strategies that assist teachers to plan lessons based on diverse ways in which students perceive and learn information; methods to better engage students in the learning process vs. potential involvement in some type of behavioral problems.
8. *Social skills development.* Strategies to provide direct instruction to students to learn how to appropriately and effectively interact with peers and adults.
9. *Creating effective learning environments.* Strategies to create a climate of student-directed learning through both physical arrangements of the classroom and diverse instructional techniques; e.g., discussion groups; individual, small and large group instruction; hands-on activities; and experimental investigations.

Guidelines

The following guidelines have been determined from the preceding review of literature concerning high ability students with behavioral problems. A brief review of relevant literature is provided as a rationale for each guideline presented.

Guideline One: Schools and universities need to devise inservice and preservice programs for educators to broaden their views about the nature and needs of high ability students and students with behavioral difficulties.

Discussion: Teachers are predisposed to view negative characteristics of children and youth as indicators of disturbances in emotional or behavioral domains (e.g., emotional and behavioral disorders [EBD] or attention-deficit/hyperactivity disorders [ADHD]). Consequently, bright children and youth who exhibit negative or noxious behaviors, and do not perform at high achievement levels, are more likely to be referred for and placed in traditional special education services than in gifted programs. Educators need information that addresses the characteristics of each classification, as well as the concept of dual exceptionalities (e.g., giftedness and behavioral problems). Practical information can dispel stereotypical viewpoints that these are mutually exclusive categories and enable educators to better recognize the characteristics of gifted students with EBD or ADHD. Educators, thereby, would be better equipped to properly screen for and identify this underserved group of high ability children and youth. The preservice and inservice training should be based on sound theoretical principles and delivered in conjunction with opportunities for direct interactions with the target population.

Guideline Two: School systems need to revise identification procedures to locate bright students with behavioral problems.

Discussion: Professionals with training in gifted education should be systematically included in the processes of eligibility determination for students in special education. Since the "negative" indicators of giftedness are commonly confused with or masked by other presenting behaviors, a traditional special education review panel is apt to ascribe such characteristics to familiar categories of learning/behavioral disabilities. An individual trained in gifted education is more likely to recognize or identify particular traits that are also indicative of creativity and/or high ability. The inclusion of an educator trained in gifted education, therefore, increases the probability that students who have behavior disorders and high ability will be identified and dually served.

Guideline Three: The student evaluation should be comprehensive in nature. Assessment must examine the full range of student strengths and weaknesses rather than the merely "testing" for the predetermined, apriori category.

Discussion: In the traditional special education deficit model, assessment procedures focus on validation of characteristics associated with a suspected disability (label), rather than on an analysis of all presenting characteristics of the learner. Assessment strategies are selected based on the suspected disability rather than to determine a global picture of the student's strengths, as well as weaknesses. For example, very few, if any, students referred for special education are administered tests of creativity, learning styles inventories, or interest assessments as part of the eligibility evaluation. A more appropriate strategy is to explore the full range of student attributes which include: interests, creativity, learning styles and preferences, intellectual ability, achievement, social/emotional/behavioral development, extracurricular accomplishments, leadership

capability, and motivational patterns. Sources of information include: formal and informal tests; school records; medical history; student, parent, and teacher interviews; behavior rating scales; and observations of student interactions in the classroom and in less formal settings (e.g., lunchroom and playground). This information should be viewed holistically to create a multidimensional portrait of the student, rather than as a series of splintered cutoff scores.

Guideline Four: School systems need to implement practices that support educators in their efforts to serve bright students with behavioral problems.

Discussion: The nature and needs of high ability/behaviorally disordered students require creative programming options and interventions. At the present, there are few, if any, teacher education programs that synthesize training in the methodologies effective for students who are gifted and also are EBD or ADHD. The implementation of building-based support teams (BBSTs) offers a means to assist teachers who work with this population. The BBST, comprised of cross-disciplinary professionals, creates a cooperative venue for teachers with varying levels of expertise to collaborate on issues of identification, to determine appropriate educational environments and methodologies, to develop and evaluate curricula, to determine performance and evaluation criteria, and to generate and provide suggestions for possible interventions. Thus, the BBST approach provides a formal framework for philosophical discussions, the exchange of ideas, and continuous staff development.

Guideline Five: Curricula for high ability students with EBD or ADHD need to be appropriate for each individual child and, thereby, designed to be challenging, creative, and motivating.

Discussion: Content selection should reflect or be based on student interests, relevance, and functional use. Interest-based lessons encourage students to be active participants in learning, rather than passive receivers of information. Relevant and functional curricula incorporate multiple levels of challenge into teaching-learning interactions, engage students in meaningful learning opportunities, and ensure that students do not repeat previously learned material.

Guideline Six: Instructional practices for high ability students with EBD or ADHD need to be diverse and determined for each child on an individual basis.

Discussion: Teachers can draw from a variety of tested methods and contexts to use diverse strategies within any group setting. Instruction that is based on the individual needs of students ensures that diverse learning styles and preferences are addressed. Interventions that encourage creativity and talent development should be infused throughout the instructional program. Effective techniques to consider include curriculum compacting, independent or self directed study, small group instruction, discussion groups, research teams, and thematic instruction.

Guideline Seven: The learning environment designed for high ability students with EBD or ADHD needs to be conducive to creative pursuits and risk-taking, and to invite learning challenges.

Discussion: The optimal learning environment is one in which problem-solving, creativity, and decision making are encouraged and valued. Students need to feel secure as they seek a variety of information and express multiple solutions and ideas. Physical arrangements in

the room(s) should permit students freedom of movement with ready access to materials, supplies, and resources needed to complete projects, tasks, and investigations.

Guideline Eight: Methods to develop autonomy, intrinsic motivation, and self-regulation for high ability students with EBD or ADHD need to be explored and employed as a replacement for extrinsic contingencies.

Discussion: "Curriculum of control" strategies (i.e., the use of external rewards and punishments) defeat efforts to help children learn to monitor and manage their academic and social behaviors. Alternative methods that focus on the development of intrinsic motivation can be incorporated into the total instructional plan. Initially, teachers need to use direct instruction in thinking skills to help students learn to set goals, make effective decisions and solve problems. Opportunities must also be provided for students to make decisions, about learning goals, classroom organization, and strategies necessary to meet those goals. As students learn to take ownership of their learning, intellectual efficiency and motivation are strengthened and the need for a curriculum of control can be minimized. Students can also learn to self-monitor and self-regulate their behaviors, which serves to strengthen autonomy. Such methods, when combined with social skills instruction, encourage students to learn ways in which to appropriately and effectively interact with peers and adults.

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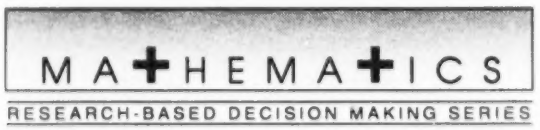

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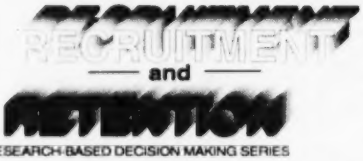

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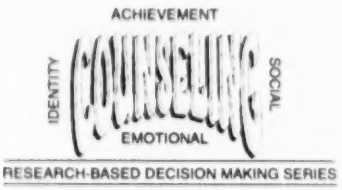

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